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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,908	11/21/2000	Mitsuo Watanabe	001539	3329

23850 7590 08/01/2002

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EXAMINER

AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 08/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/700,908	WATANABE ET AL.	
	Examiner	Art Unit	
	Walter B Aughenbaugh	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 18-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II, Claims 11-17 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that lack of unity of invention was not raised during the international stage of the application. This is not found persuasive because 37 CFR 1.48(b) states that a lack of unity of invention requirement "may be made at any time before the final action at the discretion of the examiner".

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The abstract of the disclosure is objected to because the abstract discusses a method of manufacturing an article. The elected claims are drawn to the article. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. Note that the elected claims are treated by Examiner as product-by-process claims. See MPEP 2113, wherein it is stated: "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted).

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The structural limitations of claim 1, lines 5-11, have been considered by the Examiner.

The structural limitations of claim 1 must be included in an independent claim that must be added to or incorporated in the claims of Group II, claims 11-17.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 11-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The structure recited in claim 1, on which the elected claims 11-17 depend, is vague and indefinite. The structural relationship between the “container” and the “panel like surface layer member” (line 4 of claim 1) is unclear. “Container” assigns no structure and causes confusion as to what portion of the overall structure “container” is intended to refer to- is “container” intended to mean the entire structure or only the “panel like surface layer member”?

Furthermore, the phrase on lines 5-7 of claim 1, which establish that the synthetic resin “includes” two layers, contains indefinite language. The phrase “provided to the rear surface of said surface layer member” (line 6) is indefinite on account of two reasons: 1) “provided to” is not a positive recitation and 2) it is not clear what “rear” is intended to mean. As a result of both of these reasons, the structural relationship between the two layers cannot be determined.

Due to the issues described in the preceding two paragraphs, it is unclear whether the synthetic resin sheet (line 3 of claim 1) is used to form both layers claimed in lines 5-7, or only one of these layers.

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In regard to the phrase “wherein said molded article is a container or a panel” in lines 2-3 of each of claims 11-16, no structure is given for the container or the panel and therefore the claim is incomplete with regard to the structure of the container or panel. The claims should positively set forth the purpose of the container or panel and the structure necessary for carrying out the purpose of the container or the panel; i.e., the claim is incomplete with regard to the structure of the container or panel. Furthermore, claim 1 states that “a container and a panel like surface layer member” (claim 1, lines 3-4) is prepared from the synthetic resin sheet. The language of lines 2-3 of each of claims 11-16 is therefore inconsistent with lines 3-4 of claim 1. This inconsistency must be settled. Is applicant claiming a container and a panel as separate articles or as components (separate layers) of the same article?

In regard to claim 11, the phrases “colored in such a manner that transparency or translucency can be attained” (lines 4-5) and “mixed with coloring agent and a filler in such a manner that said thermoplastic resin of the outer reinforcing layer can be colored or patterned like a marbling” (lines 6-8) are not positive recitations and therefore indefinite and cannot be given patentable weight. Note further that “like a marbling” (line 8) is indefinite. There is no antecedent basis for “thermoplastic resin” (line 5). The claim must be rewritten so that the thermoplastic resin of the outer reinforcing layer is properly introduced; Examiner suggests “wherein the outer reinforcing [shell] layer comprises/consists of a thermoplastic resin, a coloring agent and a filler” in the place of the current content of lines 5-6.

In regard to claims 13 and 14, “ABS” and “AS” must be written out in full form.

In further regard to claim 14, “wherein the surface layer member is made of translucently colored ABS resin or AS resin or transparently colored ABS resin or AS resin” is indefinite. The

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terms "translucently" and "transparently" are relative terms that render the claim indefinite. The terms "translucently" and "transparently" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The indefinite phrase "translucently colored ABS resin or AS resin" also appears in line 6.

In further regard to claim 14, the phrase "wherein at least the first layer of the surface layer member is made of translucently colored ABS resin or AS resin" is indefinite. In addition to the use of the relative terms cited above, there is no antecedent basis for "the first layer of the surface layer member". There is no limitation in any of the claims that the surface layer member may have more than one layer.

In further regard to claim 14, the phrase "wherein said molded article is patterned like a marble having light depth" is indefinite. The phrase "like a marble" is indefinite. The phrase "having light depth" is vague and indefinite; it is unclear whether or not this phrase is intended to recite a structural limitation.

In regard to claim 15, the structure of the "skidding means" is not pointed out. The phrase "to have a sharp shape" is indefinite. It is unclear if the skidding means has a sharp shape or if the surface layer member has a sharp shape. The phrase "sharp shape" itself is indefinite. The nature of the "skidding effect" is unclear. Is the improvement towards anti-slip properties or towards smoothness properties? Note that lines 5-7 are directed to the method of forming the molded article, which is not germane to issue of patentability of the molded article.

In regard to claim 16, it is unclear whether the "outer reinforcing layer member" is an additional layer over the "outer shell reinforcing layer" (claim 1, line 8) or if these are intended

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to be the same layers. PLEASE ASSIGN THE IDENTICAL NAME TO ANY LAYER THAT IS INTENDED TO BE THE SAME LAYER THROUGHOUT THE CLAIMS SO THAT CONFUSION IS AVOIDED- note “outer reinforcing shell layer” (claim 1, lines 5-6), “outer shell reinforcing member” (claim 1, line 8), “outer reinforcing layer” (claim 11, lines 5 and 7; also claim 17, lines 2-3), “outer layer” (claim 13, line 3), “outer reinforcing layer member” (claim 16, lines 3-4), “reinforcing layer” (claim 17, line 3). Are these different names all directed to one “reinforcing layer”? PLEASE RESOLVE THE DIFFERENCES IN NAMES ASSIGNED TO THE SURFACE LAYER AS WELL.

The entirety of the language of claim 17 is indefinite. The phrase “a thickness” implies that the outer reinforcing layer has more than one thickness- these thicknesses must be particularly pointed out. The “thickness” referred to in claim 17 is “reduced” based on what? “Reduced” from a thickness of x to a thickness of y (what is x, what is y)? “In such a manner...” is indefinite and vague. No structure is given for the “reinforcing rib”. The structural relationship between the reinforcing layer and the reinforcing rib is not given. What is “to retain a strength” intended to mean?

6. Examiner interprets the structure to be as follows: a container-type article (an article having a cavity which may or may not be filled with another material [Class 428 Classification Definitions, December 2000]) with two layers: a surface layer and a reinforcing layer, where the surface layer would be in direct contact with any material that would be placed in the cavity and the reinforcing layer would not be in direct contact with any material that would be placed in the cavity.

Claim Rejections - 35 USC § 102

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7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 11-13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by

Nakagawa.

Nakagawa teaches a synthetic resin container (paragraph 01) comprising an acrylic resin sheet coated with a thermoplastic reinforcement layer (paragraph 08). Nakagawa teaches that ABS plastics is the preferred class of plastics for the thermoplastic reinforcement layer (paragraphs 19 and 34). Nakagawa teaches that glass fibers of about 1-6mm are used to raise rigidity (paragraphs 20, 22 and 34-38). Nakagawa further teaches that additives such as bulking agents (i.e., fillers) and coloring agents are added requisite to need (paragraph 35-36). Nakagawa teaches that marble patterns are made in the thermoplastic layer and that the acrylic resin sheet is transparent (paragraph 23).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Adams et al.

Nakagawa teaches the molded container as discussed above. Nakagawa fails to teach that the acrylic resin sheet is made of translucently or transparently colored ABS resin or AS resin. Adams et al., however, teach an assembled sanitaryware article with appearance component 1 (Figures 1 and 2 and col. 3, lines 29-35). Examples of sanitaryware vessels are given on col. 1, lines 5-10). Adams et al. teach that sanitaryware appearance components are formed from acrylonitrile-butadiene-styrene (col. 3, lines 41-47). Figures 1 and 2 show that appearance component 1 is the structural analog of applicants' surface layer member, i.e., both the appearance component 1 of Adams et al. and the surface layer member of applicants would be in contact with any material (such as water) that is placed inside the molded article. Therefore, one of ordinary skill in the art would have recognized to use ABS resin as the material of the acrylic resin sheet of Nakagawa since Adams et al. teach that it is notoriously well known to use ABS resin as the material for sanitaryware vessels that are exposed to any material that is held in the vessel.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used ABS resin as the material of the acrylic resin sheet of Nakagawa since Adams et al. teach that it is notoriously well known to use ABS resin as the material for sanitaryware vessels that are exposed to any material that is held in the vessel.

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11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Stier et al.

Note that lines 5-7 of claim 15 claims the method of forming the surface layer member and is not given patentable weight.

Nakagawa teaches the molded container as discussed above. Nakagawa fails to teach that the surface layer member is provided with a skidding means, which is taken to mean an anti-skidding means. Stier et al. teach a prefabricated, slip resistant surface coating comprising film 16 which has embedded in the film 16 a plurality of finely-divided abrasive materials (col. 2, line 63-col. 3, line 5 and Figure 2). Stier et al. teach the application of the slip-resistant surface coating to a bathtub (Figure 3 and col. 4, lines 31-39) to reduce the hazard presented by wet bathtubs (col. 1, lines 15-16). Therefore, one of ordinary skill in the art would have recognized to apply the slip-resistant surface coating to the acrylic resin sheet of the molded container of Nakagawa in order to reduce the hazard presented by wet bathtubs as taught by Stier et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied the slip-resistant surface coating to the acrylic resin sheet of the molded container of Nakagawa in order to reduce the hazard presented by wet bathtubs as taught by Stier et al.

12. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Seymour et al.

Nakagawa teaches the molded container as discussed above. Nakagawa fails to teach that the outer reinforcing layer is formed integrally with a reinforcing rib. Seymour et al., however, teach a bathtub made of fiber glass reinforced plastic, the bottom of which is preferably

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reinforced with molded ribs (col. 4, lines 9-11 and lines 18-19). Furthermore, Seymour et al. teach a back wall with molded-in ribs which give added strength and allow the major portion of the assembly to be made of thinner fiber glass reinforced plastic without sacrificing performance (col. 4, lines 38-43). One of ordinary skill in the art would have recognized to apply the concept of the use of molded-in ribs in the back wall of the construction to allow for the use of thinner plastic sheets without sacrificing strength properties to the bathtub of the construction. Therefore, one of ordinary skill in the art would have recognized to have formed the outer reinforcing layer of Nakagawa with an integrally formed rib or with integrally formed ribs in order to allow for the use of thinner plastic sheets without sacrificing strength properties to the bathtub of the construction as taught by Seymour et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the outer reinforcing layer of Nakagawa with an integrally formed rib or with integrally formed ribs in order to allow for the use of thinner plastic sheets without sacrificing strength properties to the bathtub of the construction as taught by Seymour et al.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. 4,126,719 to Koyanagi et al. and U.S. 4,179,760 to Nakagawa.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B Aughenbaugh whose telephone number is 703-305-4511. The examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

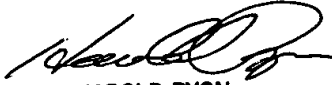
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

wba

07/29/02


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

7/29/02